

May 25, 1966

Dear Dr.

Thank you for forwarding the two preliminary copies of your proposal to me for review. I have taken the liberty of distributing copies to many of the interested persons for information and comment. I will keep you informed of all reactions as I receive them. In the meantime, I have completed my review and would like to take this opportunity to thank you for the effort you have expended in preparing this proposal.

In the course of our 18 May telephone conversation, I reviewed many of the points I would normally have covered in this letter. In the interest of brevity I will simply outline them below.

1. The macroelectrode-micro-manipulator contradiction, a misprint as you explained, however, more information is needed as to design, placement, etc.
2. Since the dog skull is somewhat variable, what criteria for stimulating electrode placement will be used? Will you be using a standard reference current to eliminate variations due to position? If you feel it necessary it may be wise to discuss the problem.
3. The problems posed by possible contraction of the spleen.
4. Organized criteria of effect, i.e., behavioral, analgesic, anesthetic, etc.
5. Use of descriptors and measurements of waveform, i.e., rise time, peak duration, decay time, etc.

Regarding these problems the most severe test will be to organize suitable scale for judging the effect of electrical stimulation. This section in particular needs expansion and refinement. Do not hesitate to use references to establish precedent. It seems to me that some care will have to be exercised in the organization of these criteria to prevent the final summary from degenerating into an anecdotal summary of a series of case histories.

Since the mode of application of current through the electrodes affects the state of the animal, I wonder if you intend to standardize the procedure of turning-on the current. What will determine the maximum current strength to be used? What considerations will determine how fast you will approach this maximum? If you proceed through a range of intensities, to a fixed maximum, will you be prepared to record transient changes which may occur?

As I understand your situation, it will take two months to get the program underway. Once started you plan to use 500 dogs in the course of the next ten months. I believe you also plan to re-use these animals whenever possible, within the constraints imposed by the potential residual effects of prior manipulation. Consequently, I have some doubt that you will be able to complete your study as outlined in the first year, and have been joined by others in wondering about the details of your protocol. Perhaps these questions may be answered best by further discussion in the body of the proposal.

I have finished with my specific comments; however, I would like to address a few words to the general problem of getting electronarcosis research sponsored. Because of the recent history of this field of endeavor, spotty-ness of performance and redundancy of the work it will be difficult, at best, to sell. Consequently, proposals in this subject area will have to be complete, well documented and realistic in scope to receive support. As I told you last October and reiterated on the telephone, I believe this study is both needed and wanted. But to receive any but cursory attention it will have to deal with well-organized, hard-headed research. Even then, it would be foolish to promise support of any kind in advance.

With this in mind, I would like to ask you to make this proposal as a starting point, detail out your research plan, and place it within a documented framework.

In the meantime, if you have any need to call me please feel free to do so. I may be reached during the day at Area Code 1 and will be happy to give you any assistance you may require.

Regarding your question on institutional overhead, I can scarcely be considered an authority in this area. However, insofar as I can determine, this figure is negotiable and will not have any effect on the acceptability of the proposal.

Once again, I wish to thank you for your effort in preparing this proposal. I am looking forward to a continuation of our communication.

Sincerely,